

Prevalence of daytime sleepiness among medical university students

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Abstract

Introduction: Medical university students are one group of students that are in high risk of sleep disorders.

Objectives: In present study, we examined daytime sleepiness among Qazvin University of Medical Sciences students.

Patients and Methods: This cross-sectional study was conducted in five faculties including medicine, nursing and midwifery, dentistry, para-medicine and health in Qazvin in 2017. Around 400 students from these five faculties were randomly selected by using sample size formula. For measuring students' daytime sleepiness, we used Epworth Sleepiness Scale (ESS). This questionnaire has eight questions and examines the chance of falling asleep in daily situations. The total score in this questionnaire ranges from 0 to 24. Score between 0-5, 6-10, 11-12, 13-15 and 16-24 indicate lower normal daytime sleepiness, higher normal daytime sleepiness, mild excessive daytime sleepiness, moderate excessive daytime sleepiness and severe excessive daytime sleepiness respectively.

Results: Around 400 students totally from these five faculties participated in the study. Of all, 63.3% were female. The mean age was 20.8 ± 2.5 years. The mean score of total daytime sleepiness was 17.9 ± 3.6 . Higher and lower mean score were related to items "sitting and talking with someone" and "sitting quietly after lunch", respectively. Demographics characteristics did not affect students' daytime sleepiness significantly ($P > 0.05$).

Conclusion: The present study showed that daytime sleepiness is prevalent among students in medical universities. There is a need to increase the attention to this problem and planning to decrease it.

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Introduction

Sleep is divided into two cyclic, NREM (non-rapid eye movement) and REM (rapid eye movement) sleep (1). Duration of sleep and wakefulness is controlled centrally by a biologic clock in the hypothalamus (2). Enough sleep is vital for everyone (3). Humans usually need at least seven hours' night sleep in a day (4). Factors such as sleep quantity, sleep time, sleep quality and sleep regularity affect human sleep health (4).

Having enough sleep is very important for college students. Evidence showed that sleep disorders such as daytime sleepiness, sleep deprivation, and irregular sleep schedules affect university students' success (2,5). In a greater study in 2008, researchers examined the rate and risk of sleep disorders among university students in the USA. The results of this study revealed that a high proportion of students (27%) are at risk of one type for sleep disorders. This study concluded that the rate of sleep disorders may negatively affect the students' academic success (6). In other study in 2010, Gilbert and

Core tip

Daytime sleepiness is prevalent among students in medical universities. There is a need to increase attention to this problem and planning to decrease it.

Weaver examined the relationship between university students' quality of sleep and sleep quality and academic success. Sample of their study were 103 males and female students in University of Minnesota. The results of the study by Gilbert and Weaver showed that students' quality of sleep has a significant relationship with their grade-point average (GPA) (7). In another study, Jain and Verma examined the prevalence of sleep disorders among university students in India. They examined 1423 student, using SLEEP-50. Results of their study revealed that 25% of students are at risk for one types of sleep disorders. Among these disorders, obstructive sleep apnea, narcolepsy, sleepwalking, nightmares and insomnia can be mentioned (8).